



**AAAAI**  
AMERICAN ACADEMY OF ALLERGY  
ASTHMA & IMMUNOLOGY

## FLU, ASTHMA AND ALLERGIES

The novel H1N1 flu virus (sometimes called “swine flu”) is creating headlines around the world. With each passing day, medical experts and the public are learning more about this virus – how it behaves and how to treat it.

As with the regular, seasonal flu, people with allergies and asthma should take prevention measures to avoid getting sick.



### ASTHMA'S AFFECT

A recent report from the Centers for Disease Control and Prevention (CDC) found that the majority of pediatric deaths from H1N1 occurred in children with an underlying medical condition--in some cases asthma.

Children and adults with respiratory conditions such as asthma are more likely to experience serious health problems if they contract the flu. The American Academy of Allergy, Asthma & Immunology (AAAAI) urges all patients with asthma to get the H1N1 vaccine in addition to the regular seasonal flu vaccine.

### IS IT AN ALLERGY OR IS IT THE FLU?

Novel H1N1 and the seasonal flu are not the same, but have similar symptoms. Some allergy symptoms may also be confused for flu symptoms. For parents of children with asthma or allergies, telling the difference between allergic disease symptoms and the seasonal flu or H1N1 may be a bit difficult.

“Itchy eyes, a scratchy nose or sneezing are symptoms of allergies,” explains Thomas B. Casale, MD, FAAAAI. “But if your child suffers from asthma and develops a fever or nausea and vomiting, consult your physician.”

*Avoiding the Flu at School*, continued on page 3

## THE VIRTUAL ALLERGIST™

When you have questions about your health concerns, you want answers right away. While there's no substitute for the advice of a board-certified allergist, online tools can also give you valuable information.

The Virtual Allergist is an interactive, Web-based tool that can help you understand what may be causing your symptoms. To use The Virtual Allergist, visit [www.aaaai.org/patients/virtual](http://www.aaaai.org/patients/virtual)



[allergist](http://www.aaaai.org/patients/virtual) and select the area of the body where you are experiencing symptoms. Then choose your symptom—such as sneezing, trouble breathing or a runny nose—to get information on conditions that could be causing your health problem.

After using The Virtual Allergist, visit the AAAAI's online [Physician Referral Directory](#) to find an allergist/immunologist near you. An allergist is the best-qualified medical professional to help diagnose and treat your allergies and asthma.

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## YOU DESERVE EXPERT CARE

An allergist is a pediatrician or internist with an **extra two years** of specialized training and is the best physician to diagnose and treat allergies and asthma. Find one near you at [www.aaaai.org/physref](http://www.aaaai.org/physref)

# WHAT MAKES US ITCH?

Veneta Ianakieva, BS and Richard W. Honsinger, MD, MACP, FAAAAI



An itch can be brought on by allergies, dry skin, insect bite, stress or, in some cases, a serious medical condition.

While most itches are merely bothersome or uncomfortable, excessive scratching can damage your skin's protective barrier and expose your body to germs and infection.

Itch and pain are closely linked in the brain. The reflex to pain is to withdraw. The reflex to itch

is to scratch. Itch sensations are rooted in our evolution. It is a protective response developed to help animals remove parasites from their skin. That's why even a slight movement of hairs is enough to make you want to scratch.

Itching is often triggered by histamine, a protein in the body associated with immune responses. Among other roles, histamine is released during an allergic reaction. It causes the itch and redness you see with insect bites, rashes and skin dryness or damage.

Histamine is also released by the body during allergic reactions, such as those to food and medications. If your itch is accompanied by a rash, it may be caused by an allergy. An allergist/immunologist can identify the triggers and prescribe treatment.

## TYPES OF ITCH

Pruriceptive itch is due to an allergy reaction, inflammation, dryness, or other skin damage. It is seen in atopic dermatitis (eczema), urticaria (hives), psoriasis, drug reactions, mites, and dry skin. This type of itch is treated with antihistamines and drugs that alter the immune reaction.

Neuropathic itch is caused by damage to the nervous system. It is usually accompanied by sensations of numbness and tingling. This type of itch is seen after shingles (postherpetic neuralgia), after stroke or burn injury, and in notalgia parasthetica (an area of itchy skin, usually on the back). It is treated with non-narcotic analgesics and capsaicin.

Neurogenic itch originates in the central nervous system in the absence of nerve damage. This type of itch is seen in chronic liver and kidney disease in response to opioid neuropeptides. It is treated with narcotic and non-narcotic analgesics.

Psychogenic itch is induced in response to the chemicals serotonin and norepinephrine. It is observed in stress, depression, and delusional parasitosis (a false belief of parasite infestation). Psychogenic itch is treated with antidepressants and antipsychotic medications.

If itching (with or without a rash) is affecting the quality of your life, consult your physician to find the underlying cause and get relief.

## About ISSUES

*Allergy & Asthma Issues* is a free quarterly publication from the American Academy of Allergy, Asthma & Immunology.

*Issues* is written and reviewed by medical professionals, but is not intended to replace or constitute medical advice. For specific medical questions, visit an allergist/immunologist. Locate one near you at [www.aaaai.org/physref](http://www.aaaai.org/physref).

For additional patient information on allergies and asthma, visit [www.aaaai.org](http://www.aaaai.org).

The American Academy of Allergy, Asthma & Immunology represents allergists, asthma specialists, clinical immunologists, allied health professionals and others with a special interest in the research and treatment of allergic disease. Established in 1943, the AAAAI has nearly 6,500 members in the United States, Canada and 60 other countries.

Here's how to tell if you are suffering from allergies or something more severe

Allergy symptoms	Flu symptoms
Runny nose	Runny nose
Sneezing	Coughing
Stiffness	Sore throat
Itchy, watery eyes	Tiredness
Itchiness in the nose, mouth or throat	Lack of appetite
	Fever
	Nausea or vomiting
	Diarrhea

### FOOD ALLERGIES AND VACCINES

Vaccinations for both the seasonal flu and H1N1 are among the best prevention tools available to prevent complications from the flu. But what if you are allergic to a substance in the vaccines?

“Individuals with egg allergy may be at risk for an allergic reaction to H1N1 and seasonal influenza vaccines due to the egg content in the vaccine preparations,” reports Dr. Casale. “Before getting vaccinated, review the information posted on [www.aaaai.org](http://www.aaaai.org) and consult with your health care provider. In most cases, vaccination can be tolerated if done according to these recommendations.”

### IF YOU DO GET SICK

The Centers for Disease Control and Prevention recommends that people with flu-like symptoms stay home for at least 24 hours after they are free of fever.

If you experience severe symptoms, including difficulty breathing, chest pain/pressure, dizziness or persistent vomiting, seek emergency medical care.

### KEEP INFORMED

The AAAAI offers a comprehensive library of resources on the novel H1N1 virus – especially as related to allergic diseases – including treatment recommendations, vaccine news, case studies and information for patients. Subscribe to the RSS feed to be notified of the latest updates as they happen.

### AVOID CONTRACTING OR SPREADING THE FLU

- Wash your hands frequently with soap and warm water
- Hand sanitizers may also be effective
- Use a tissue to cover your coughs and sneezes
- Avoid touching your eyes, nose and mouth
- Stay home if you feel ill
- When possible, avoid close contact with sick people
- Obey school/business closures and other public health advisories

## BACK TO SCHOOL

The American Academy of Allergy, Asthma & Immunology's [School Tools](#) are designed to keep children with allergic diseases safe and healthy at school by helping their teachers and other school personnel understand food allergies, anaphylaxis and asthma.

Have asthma? Download a copy of AAAAI's new asthma action plan, which can help school officials respond to your child's asthma symptoms.

You can also print copies of the *Introduction to Asthma* article for your

child's teachers, coaches and child care providers. Help them identify asthma symptoms and provide proper treatment – including when to call a doctor or seek emergency medical care.

The complete School Tools library is located at [www.aaaai.org/professionals/school\\_tools](http://www.aaaai.org/professionals/school_tools).



Allergy & Asthma Resources for Professionals

## "IF I HAD..." VIDEO SERIES

Get advice on allergies, asthma and more. In a new online video series, AAAAI experts tell you what they would do if they had a food allergy, hives or other medical problem. Visit [www.aaaai.org/patients/allergy\\_asthma\\_videos.asp](http://www.aaaai.org/patients/allergy_asthma_videos.asp).

Curious about the difference between food allergies and food intolerance? Not sure what a peak flow meter is? Get answers to these and other questions about allergies and asthma: [www.aaaai.org/patients/question-week/](http://www.aaaai.org/patients/question-week/)



## EYE ALLERGY: CAUSES AND TREATMENT

Conjunctivitis is an inflammation of the conjunctiva. This is the mucous membrane covering the white of the eyes and the inner side of the eyelids. If something irritates this clear membrane, your eyes may water, itch, hurt, or become red or swollen.

In some people, conjunctivitis is due to an allergy. In these instances, the condition is called either allergic conjunctivitis or ocular allergy. It can occur alone, or it may be associated with nasal allergy symptoms. Unlike conditions such as pink eye, allergic conjunctivitis is not contagious.

A recent study reported by Leonard Bielory, MD, FAAAAI, states that ocular allergies may be more common than nasal allergies in some areas, especially in the southern United States. And, while most people treat nasal allergy symptoms, they often ignore their itchy, red, watery eyes.

### CAUSES AND TRIGGERS

If you have an allergy, your immune system identifies something as an invader or *allergen*. Your immune system overreacts by producing antibodies called *Immunoglobulin E (IgE)*. These antibodies travel to cells that release chemicals, causing an allergic reaction. This reaction usually causes symptoms in the nose, lungs, throat, sinuses, intestinal tract or the eyes.

The most common allergen is pollen, which is seasonal. People with seasonal allergic conjunctivitis, or rhinoconjunctivitis will experience symptoms at certain times during the year - usually from early spring, into summer, and even into autumn (fall). Those with perennial allergic conjunctivitis are susceptible at any time of year. These irritations may be triggered by perfumes, cosmetics, skin medicines, or environmental allergens such as air pollution or second-hand smoke.

### SYMPTOMS

Most people suffering from allergic conjunctivitis have problems in both eyes. Symptoms may appear quickly, soon after the eyes have come into contact with the allergen. The most common symptom occurs when the eyes become irritated, the capillaries (small blood vessels) widen and the eyes become pink or red. Some people experience pain in one or both eyes. Other symptoms include swollen eyelids, a burning sensation, sore or tender eyes.



### TREATMENT

According to Dr. Bielory, about 50% of conjunctivitis cases seen by primary care physicians are actually allergic in nature. There are many different treatment options, depending upon the severity of the symptoms.

As with any allergy, the first approach for successful management of seasonal or perennial forms of eye allergy should be prevention or avoidance of the allergens that trigger your symptoms. The AAAAI [Outdoor Allergens brochure](#) offers tips on avoiding triggers. offers tips on avoiding triggers.

However, avoidance of airborne allergens isn't always possible. That is when medications may be helpful.

Over-the-counter (OTC) eye drops and oral medications are commonly used for short-term relief of some eye allergy symptoms. However, they may not relieve all symptoms, and prolonged use of some OTC eye drops may actually make your symptoms worse.

Prescription eye drops and oral medications can also treat eye allergies. Prescription eye drops provide both short- and long-term targeted relief of eye allergy symptoms, and they can be used to manage eye allergy symptoms in conjunction with an oral antihistamine that might be taken to manage nasal allergy symptoms.

Dr. Bielory recommends that any medication placed in the eye should be kept in the refrigerator.

An allergist/immunologist can determine which treatment for allergic conjunctivitis is best for you. An allergist can also test for other allergies, as ocular allergy rarely occurs alone. To find an allergist/immunologist in your area, visit [Physician Referral Directory](#).



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# TEACHING YOUR CHILD ABOUT ASTHMA

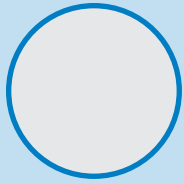
Anthony Martinez, BS, and Richard W. Honsinger, MD, MACP, FAAAAI

Your child has just been diagnosed with asthma. Are you ready to explain this complex disease in terms your child can understand? Here are some tips:

**Keep it simple.** Don't get bogged down in the details. When explaining asthma to your child, use simple terms. Making use of diagrams can help describe the disease to your child.

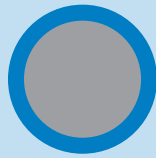
Asthma is a temporary blocking of airways due to:

- Tightening of muscle surrounding the airways
- Mucous buildup in the airways
- Swelling (inflammation) of the airways



## NORMAL AIRWAY

Normal Airway: A big circle shows the airway is relaxed. A thin blue line means there is no inflammation. A light color in the middle shows there is no mucous buildup.



## ASTHMATIC AIRWAY

Asthmatic Airway: The circle is smaller because of muscle tightening. The blue line is thicker to represent inflammation. The darker center represents mucous buildup.

**Talk about triggers:** Diagnosing the precise cause of asthma is sometimes difficult because two or more triggers may be present in one child.

Examples of common causes that trigger asthma are:

- allergens such as pollen or pets
- irritants such as second-hand smoke
- medicines (over the counter or prescription)
- exercise (known as exercise-induced bronchia)
- colds, other viruses or respiratory infections

Knowing what causes your child's symptoms is important. An allergist/immunologist, often referred to as an allergist, has specialized training and experience to help determine what is causing your child's asthma and how to treat it.

## Understand treatment:

Talk to your physician about current treatment guidelines for children with asthma. Your physician should take an active role in making sure both you and your child know how to properly use an inhaler, a nebulizer, a spacer, a peak flow meter and any other medicines or devices that are needed for proper treatment and management.

## Prepare for an

**emergency:** Despite you and your child's best efforts, they may

experience severe asthma symptoms that make it hard to breathe. It may be necessary for your child to have more than one inhaler. A short-acting inhaler, or rescue inhaler, helps quickly relieve the tightening of the muscle surrounding the airways. This inhaler is used in addition to daily treatment prescribed by your doctor; it is not a replacement. Put a sticker on the rescue inhaler or write "Rescue" or "911" in bold along the side of the inhaler so your child can easily identify it in the event of an emergency.

**Get more information:** To take the next step to understanding childhood asthma in greater detail, visit these links on the AAAAI Web site:

[Disease 101](#)

[Childhood Asthma](#)

[Cough in Children](#)

[What is a Peak Flow Meter?](#)

## Available for purchase:

[All About Asthma](#)

[Asthma: Understanding and Control DVD](#)

